Stewardship in Action

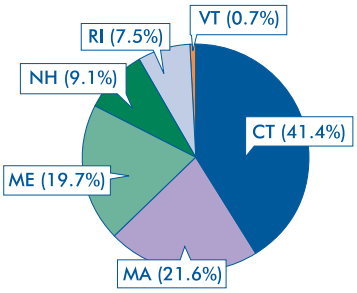
"We need to imagine a prosperous commercial culture that is so intelligently designed and constructed that it mimics nature at every step, a symbiosis of company and customer and ecology."
—Paul Hawken

EPA-New England is charged with ensuring that businesses, government agencies, and individuals are fulfilling their environmental responsibilities. We are entering our twenty-eighth year of vigorously enforcing federal environmental regulations through civil and criminal enforcement actions. Environmental issues today are increasingly complex, and we continually strive to develop enforcement strategies that utilize our resources efficiently, maximize deterrence, and yield the greatest environmental and human health outcomes. These are the results that our residents want and care about, and they are at the center of all our protection efforts.

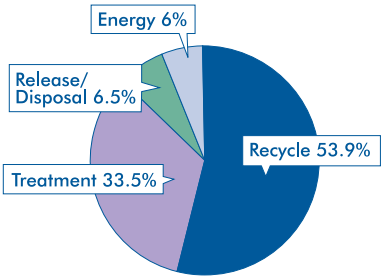
At the same time, EPA-New England's Assistance and Pollution Prevention (A&P2) staff assists New England businesses, municipalities, tribes, federal facilities, and others to adopt and thrive on environmentally sound practices and measures to attain or exceed environmental standards. We build alliances with the regulated community to promote an understanding of EPA regulations and develop innovative approaches to environmental protection. Our goal is to complement traditional approaches to enforcement and environmental compliance, and to improve the environment by providing information and assistance necessary to help members of the regulated community become better environmental stewards.

Figure 10
New England Toxic Waste
Where Generated;
How Managed

Total Toxic Waste Generated



Toxic Waste Management Profile



Total Waste Generated=
499.4 Million lbs

source: EPA Toxic Release Inventory

Assistance for Best Performance

In 1998, the A&P2 office responded to over 13,600 requests for assistance, sponsored 70 workshops, and spoke at more than 250 outreach events. We conducted 143 on-site visits to assist the regulated community, as well as additional visits to provide other forms of assistance such as educating businesses about available assistance programs. In March 1998, EPA-New England worked with the White House to host a regional conference with Vice President Al Gore and EPA Administrator Carol Browner. The conference was designed to address barriers facing innovative environmental technologies and to present new approaches for environmental protection. The day-long event brought together 500 environmental and business leaders from New England and across the United States. Participants worked together to develop recommendations ranging from third-party certification of environmental performance to financial mechanisms for promoting environmental technology.

EPA-New England began the second year of its innovative StarTrack program, piloting a new paradigm for environmental management. Based on the same concept as our country's system of financial audits, the program requires participating companies to have their compliance with environmental laws certified by independent third parties. Companies must have shown a commitment to environmental excellence, by implementing a formal Environmental Management System (EMS), and issue public environmental performance reports. In return, they will gain relief from scheduled inspections (though

EPA will continue spot-checking), receive expedited permits, and earn public recognition as an environmental leader. As companies shift to this model, this will allow EPA staff to devote more time and resources inspecting the companies with the worst performance records. StarTrack is developing strategies to continue program expansion, and has drawn interest from other organizations and efforts, including the National Academy of Public Administration and the President's Council on Sustainable Development.

EPA's Project XL initiative continues to encourage companies, states, and communities to propose innovative mechanisms for achieving superior environmental results. One XL project approved in 1998 is the Massachusetts Environmental Results Program, which replaced conventional, time-consuming, state-issued permits for each individual business with uniform industry-wide environmental performance standards that each business must certify they are meeting. Current sectors included in this program are printers, dry cleaners, and photo processors representing 10,000 Massachusetts companies. The Massachusetts model is being evaluated around the nation as the next wave of smart environmental regulation.

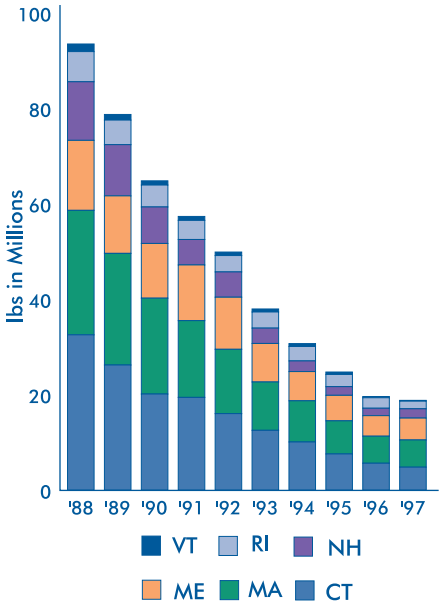
EPA-New England's Emergency Planning and Community Right-to-Know (EPCRA) Team has developed a strong and exciting partnership with the Chelsea, Massachusetts public high school. Students were trained to use computer tools to assess potential hazards from accidental releases of chemicals in their community. The students worked with the city's emergency response officials and companies in the area to assess hazards and develop emergency response plans. As a result of the project, 60 Chelsea companies have come into compliance with EPCRA over the past year (only two companies were in compliance with the Act before the students began this effort). The Chelsea project is being discussed on the national level as a successful model for other communities.

Better Measurement, Evaluation, and Communication

EPA New-England's Office of Environmental Stewardship has several efforts underway to evaluate compliance with environmental regulations. This is a multi-faceted effort to use more sophisticated analytical tools to improve our ability to evaluate compliance rates, learn more about root causes of noncompliance, and understand the role of corporate management in environmental compliance.

One example is EPA's work with United Technologies Corporation (UTC), aimed at evaluating the root causes of noncompliance by the regulated community and assessing the subsequent effectiveness of formal Environmental Management Systems (EMS) to address the problem. As part of the settlement of an EPA-New England initiated enforcement action against UTC, the corporation agreed to develop and implement an EMS at nineteen of its New England business units. After several years of implementation, the corporation and EPA developed a partnership to evaluate the effectiveness of these EMS.

Figure 11
Historical Trends
in Toxic Releases
(Total to Land, Air and Water)



source: EPA Toxic Release Inventory

This analysis is the first of its kind focusing on multiple facilities within a single corporation and evaluating the effectiveness of EMS. The results of this study will help shape the future of compliance activities and environmental management.

In addition, the Office of Environmental Stewardship is identifying measures of important environmental and human health outcomes achieved by our state partners not currently captured by the Region's data collection systems. For example, inspections of gas stations by state agencies were not previously recorded in EPA's databases, but in 1998, state inspectors in New England conducted 5,962 vapor recovery inspections/visits at gas stations and conducted 1,217 inspections of underground oil and gasoline storage tanks. EPA and the New England states are looking for ways to better measure the effects of inspections and other activities on compliance rates, and ultimately on environmental conditions.

Creating Synergy for Enforcement and Compliance Assistance

In the past few years, EPA-New England has stepped up its enforcement effort against public facilities in New England, filing more than two hundred cases against public agencies in response to serious noncompliance with environmental regulations. In March 1998, complaints were filed against the Rhode Island Department of Transportation (RIDOT) for violations of hazardous waste laws and the Clean Water Act. The most serious violations involved RIDOT's improper handling and storage of large amounts of hazardous waste in a building in Providence, Rhode Island. EPA inspectors found 938 containers filled with various hazardous materials, including waste paints, solvents, and thinners. Most of the hazardous waste was ignitable; hundreds of containers were open, spilled or leaking, and the facility had no fire alarm system or fire extinguisher on site. The complaint was settled with RIDOT agreeing to pay fines and fund two environmental projects, the total reaching over $500,000. RIDOT will spend $438,500 on a project to remove lead paint in Rhode Island day care facilities (described in our children's health section of this report). RIDOT will spend an additional $15,000 to conduct two 1-day environmental compliance training sessions for municipalities in Rhode Island.

EPA has leveraged this action to encourage future public agency compliance in the region by sending 1,700 letters to agencies in New England describing the circumstances involved in the Rhode Island case. Most importantly, the letters also contained compliance assistance information, including Internet addresses where interested parties can find statute-specific compliance information and listings of available workshops and training sessions. Response has been extremely positive, with standing-room-only attendance at the first of these training sessions.

Protecting Drinking Water for Eastern Massachusetts

Boston's drinking water treatment system is operated by the Massachusetts Water Resources Authority (MWRA) and serves approximately two million people. For over

PCB Cleanup in Pittsfield

In September 1998, EPA-New England, in association with the U.S. Department of Justice, state agencies in Massachusetts and Connecticut, and the City of Pittsfield, reached an agreement in principle with General Electric (GE) over cleaning up PCB contamination in Pittsfield, Massachusetts and the Housatonic River. The agreement requires GE to provide for substantial investments in the cleanup of the Housatonic River, the GE plant site and other contaminated properties, as well as brownfields redevelopment in Pittsfield and compensation for natural resource damages.

The negotiating process was long and often difficult. However, the dedication of local representatives and the negotiating parties finally paid off. With the assistance of outside mediators, an agreement was reached that avoided decades of costly litigation, and was hailed by business, environmental and community groups as a solution that addressed all of their concerns. The agreement was a major victory for EPA-New England's approach of negotiating where possible while remaining commited to pursue whatever alternatives are necessary for strong, successful environmental protection.

Citizen's Coordinating Council will serve as a focal point for community participation and ensure that the cleanup is managed in a fully collaborative and cooperative manner.

five years, the MWRA has been violating the Safe Drinking Water Act by not filtering its drinking water. Filtration provides substantial protection against pathogens in drinking water. Pathogens can cause gastrointestinal illness in healthy people, especially sensitive people, such as those with underdeveloped or compromised immune systems (e.g., the elderly, the very young, chemotherapy patients, AIDS patients) and the seriously ill. Filtration also makes it possible for water systems to use far less chlorine, which is important because the chemical byproducts of chlorine disinfection have been linked to cancer and reproductive problems in women. The Safe Drinking Water Act requires filtration for any major supplier unless they meet strict standards for the effectiveness of their disinfection system; requirements the MWRA has never met since the Act went into effect.

After negotiations with the MWRA failed, in 1998 EPA-New England, along with the Department of Justice, filed suit against MWRA for violations of the Surface Water Treatment Rule under the Safe Drinking Water Act requirements. Court hearings are scheduled for spring 1999. Continued oversight of state enforcement of this rule is an ongoing priority in the region. This program is consistent with our focus on the most important environmental and public health issues—particularly those that have a strong impact on children—and with our effort to secure the greatest public benefit from our enforcement resources.

Water filtration provides substantial protection against pathogens in drinking water—pathogens can cause gastrointestinal illness.

Special Superfund Stories

The New Bedford Harbor and Pine Street Canal Superfund sites are examples of successful efforts in community participation and consensus-building in the Superfund program. In both cases, community dissatisfaction with the traditional Superfund process prompted EPA to create new mechanisms to include community and other voices, resulting in solutions that all parties could accept.

New Bedford Harbor is part of Buzzard Bay in Massachusetts, which has been designated as one of the nation's most significant estuaries. However, sediment in the harbor has been contaminated with extremely high levels of PCBs, leading to a fishing ban and threatening the health of those who use the harbor. Originally, EPA proposed dredging and on-site incineration of highly PCB-contaminated "hot spot" sediments. In response to vehement local opposition to on-site incineration, EPA helped to create a Community Forum to undertake the long and arduous process of building a consensus for site cleanup. In 1998, the Forum reached consensus on both the 5-acre "hot spot" cleanup and the 200-acre, $130 million harbor-wide remedy. The consensus included an innovative approach to contain and consolidate the dredged sediments in several confined disposal facilities. The joint effort of many people and organizations made New Bedford Harbor a national model demonstrating that the Superfund program can work within a community to achieve consensus on controversial, but essential decisions.

Photo: Jim Keleher

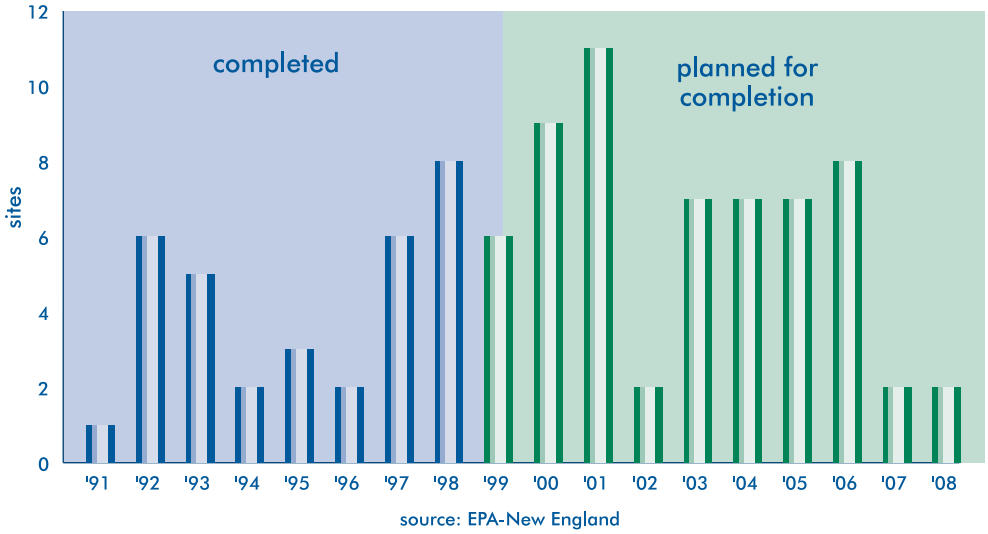
With funding from the EMPACT Program, EPA-New England and the Charles River Watershed Association have initiated an effort to collect water quality samples at key locations along the Charles River and then post water quality alert flags at boathouses announcing the results. The team is planning to install real-time water quality monitors linked to the world wide web, enabling people to view the amount and quality of water flowing into the Charles on their computer screens.

EPA-New England also used a community-based consensus process to develop a proposal for cleaning up the Pine Street Canal in Burlington, Vermont, another controversial Superfund site. For over seventy years, a gas plant located on this site dumped large volumes of waste into the adjacent wetlands and canal, seriously contaminating groundwater and harming wildlife. EPA's original plan was met with massive community opposition for being too expensive and intrusive. After months of controversy, the Pine Street Barge Canal Coordinating Council was created as a way to begin a mediated process that ensured meaningful involvement of all parties, including multiple agencies and local interests. In May 1998, this Council was able to reach consensus on a site cleanup plan which includes construction of an underwater cap over contaminated sediments in the canal, wetlands restoration, and long-term groundwater monitoring—at a cost of about one-tenth of the original proposal. In addition, the responsible parties made voluntary contributions of nearly $3 million in additional projects of significant environmental benefit to the Burlington area. The plan has received overwhelming community support and political support from Vermont's congressional delegation, the governor, and the mayor of Burlington.

Coming Soon: A Fishable and Swimmable Charles

Efforts to restore the Charles River to fishable/swimmable standards are making steady progress. Each of the nine lower watershed communities has developed a

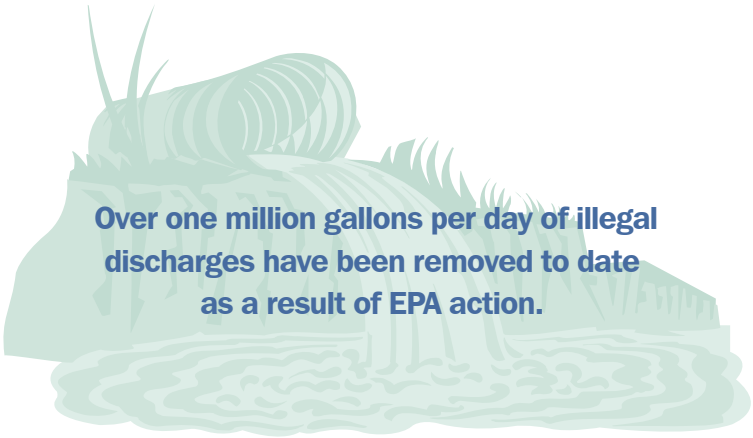
Figure 12
Superfund National Priority List Sites - Clean Up Action Construction



source: EPA-New England

stormwater management plan and continues to identify and eliminate illicit discharges of sewage through storm drains. Through coordination between EPA and the Massachusetts DEP, the Charles River communities secured $75 million in state revolving loan funds over the past year to finance stormwater treatment and eliminate illegal discharges. Over one million gallons per day of illegal discharges have been removed to date as a result of EPA action. EPA-New England's A&P2 staff developed a program to provide the nearly one thousand auto care and repair facilities in the lower Charles watershed with information about proper stormwater and drainage management. To encourage compliance, EPA-New England's enforcement office notified all facilities in the watershed that they had sixty days before EPA inspections would begin. When inspectors made their rounds, they found most facilities were in very good order.

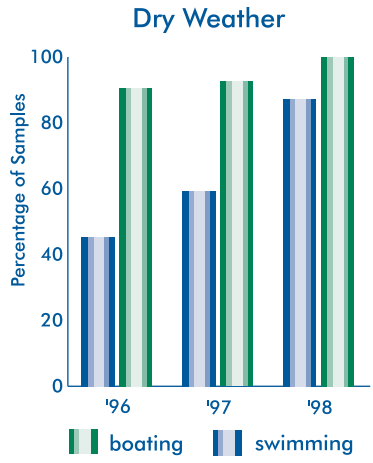
With the help of the EMPACT Program in the region, EPA-New England and the Charles River Watershed Association have initiated an effort to collect water quality samples at key locations along the Charles River and then post water quality alert flags at boathouses announcing the results. The team is planning to install real-time water quality monitors linked to the World Wide Web, enabling people to view the amount and quality of water flowing into the Charles on their computer screens. An EPA grant to the Watershed Institute, a local environmental education and advocacy group, will help design a series of field study projects that will allow high school students to track the recovery of the river by assessing various animal and plant species in and along the river.

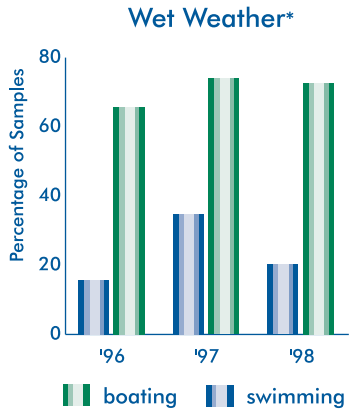


Over one million gallons per day of illegal discharges have been removed to date as a result of EPA action.

Figure 13
Progress in the Charles River Basin

Samples Meeting Fecal Coliform Standards





*wet weather samples were collected after a minimum of 0.5" rainfall.
source: Charles River Watershed Association